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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,957	08/31/2006	Peter Faile	WW033USU	9477

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STAMFORD, CT 06901

EXAMINER

NGUYEN, NINH H

ART UNIT	PAPER NUMBER
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3745

MAIL DATE	DELIVERY MODE
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07/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/538,957

Applicant(s)

FAILE ET AL.

Examiner

Ninh H. Nguyen

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-11, 14-23 and 25-27 is/are rejected.
- 7) ☒ Claim(s) 12, 13 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/14/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 8, 9, 11, 15-21, 23, 26, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Moody (1,919,376).

Moody discloses a turbine (Figs. 1-18) comprising: a runner having one or more rotor blades and a hub (Fig. 1); a housing having a distributor 21 that regulates flow of the medium into the runner; a draft tube 28 that guides the medium flowing out from the runner and having an inlet diffuser; and a displacement unit 27 in the draft tube and having an upstream end in proximity to the hub, wherein the displacement unit has a variable width (Fig. 1);

wherein the width of the displacement unit increases in the direction of flow of the medium (Fig. 1);

wherein the draft tube is curved (Fig. 1);

wherein the displacement unit extends substantially longitudinally in the draft tube (Fig. 1);

wherein the width of the displacement unit is tapered in the direction of flow of the medium (Fig. 1);

wherein the displacement unit is supported by rods 23 (Fig. 1) connect to the draft tube; and

Art Unit: 3745

wherein the medium being pumped is water.

3. Claims 8, 9, 11, 14, 16-21, 23, 25, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Donaldson (3,292,901).

Donaldson discloses a turbine (Figs. 1-11) comprising: a runner having one or more rotor blades and a hub (Figs. 7-9); a housing having a distributor 30 that regulates flow of the medium into the runner; a draft tube 60 that guides the medium flowing out from the runner and having an inlet diffuser; and a displacement unit 62 in the draft tube and having an upstream end in proximity to the hub, wherein the displacement unit has a variable width (Figs. 7-9);

wherein the width of the displacement unit increases in the direction of flow of the medium (Fig. 7);

wherein the displacement unit is supported by rods 64 connected to the draft tube

wherein the draft tube runs along a substantially straight line (Fig. 7);

wherein the displacement unit extends substantially longitudinally in the draft tube (Fig. 7);

wherein the width of the displacement unit is tapered in the direction of flow of the medium (Fig. 7); and

wherein the medium being pumped is water.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3745

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moody.

Moody discloses all the limitations including the displacement unit 27 extends up to the hub (page 2, lines 126-129). However Moody does not disclose the distance between the hub and the upstream end of the displacement tube is not between 0.5mm and 50mm as claimed.

Since the applicant has not disclosed that having the distance between the hub and the upstream end of the displacement tube is not between 0.5mm and 50mm solves any stated problem or is for any particular purpose above the fact that the upstream end of the displacement unit needs to be closed to the hub to form a smooth flow path (Moody page 2, lines 126-129), and it appears that the displacement unit of Moody would perform equally well with the distance to the hub within the range as defined and claimed by applicant, it would have been an obvious matter of design choice to modify the displacement unit of Moody by utilizing the specific distance range as claimed.

Allowable Subject Matter

6. Claims 12, 13, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

The prior art made of record but not relied upon is considered pertinent to applicant's disclosure and consists of 2 patents.

Moody (2,010,555) and Taylor (1,897,501) are cited to show different draft tube configurations for hydraulic turbines.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Ninh Nguyen whose telephone number is (571) 272-4823. The examiner can be normally reached on Monday-Friday from 7:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached at (571) 272-4820. The fax number for this group is (571) 273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Application/Control Number: 10/538,957

Page 6

Art Unit: 3745

system, please go to <http://pair-direct.uspto.gov> or contact the Electronic Business center (EBC) at 866-217-9197 (toll-free).


NINH H. NGUYEN
PRIMARY EXAMINER

Nhn
June 25, 2007